

BOOK REVIEW

BIOLOGICAL CONTROL BY NATURAL ENEMIES. Paul Debach. 1974. Cambridge University Press, New York, 323 p. illus. \$14.95 (cloth) \$5.95 (paper) (73-90812). Since 1964 when "Biological Control of Insect Pests and Weeds" was published under editorship of Paul Debach there has been an avalanche of books, review articles, and "state of the art" publications dealing with biological control. However, this latest book authored by Debach is of a different genre. First of all it is highly readable. Debach's career has bridged the period from the apogee of biological control during the 1930's, through the DDT eclipse of the 40's, to reemergence in the 60's. During this time he was one of the few entomologists who worked continuously in the field of biological control. As a survivor of "the long march" he has enthusiastically seized the opportunity to take the offensive. His first chapter entitled "Fostering pests through misuse of chemicals" should loosen a few stones in the wall. However, the book is much more than a polemic against pesticides, and in Chapter 10 they are accepted—reluctantly—as integral elements of integrated pest control programs. The full scope and emphasis of the book is indicated by the remaining chapter headings: (2) Pests and their natural enemies, (3) Biological control ecology, (4) Early naturalists and experiments, (5) The first foreign explorers, (6) Modern foreign explorations and successes, (7) Maximizing biological control through research, (8) Utilization by the public, (9) Other biological methods, and (10) Escape from the pesticide dilemma.

While Debach discusses biological control in the broad sense which includes autocidal methods and plant resistance, he is above all a proponent of importation of exotic enemies. He also depreciates the utility or at least the feasibility of attempts to evaluate the efficacy of these species before importation. This, of course, applies to primary parasites of insect pests—not insect enemies of weeds where the questions of host specificity and efficacy are much more critical. In Chapters 5 and 6 many importation projects are discussed in detail. These provide insight to both the principles and methodology of "classical" biological control. All in all, experienced biological control workers will find the book enjoyable and informative. They will also second Debach's views regarding need for greater recognition of the accomplishments of biological control, as well as need for increased emphasis on research designed to better utilize natural enemies in pest management programs. Finally, the book is eminently well suited to provide the non-specialist with a comprehensive introduction to the field of biological control.

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